

## EXHIBIT 1

## FIRE CONSULTING ASSOCIATES, INC.

Post Office Box 6664 • Providence, Rhode Island 02940 • 401-467-6014

April 28, 2006

Your File No. 1074.011

Brody, Hardoon, Perkins & Kesten, LLP  
Attorneys at Law  
One Exeter Plaza  
Boston, MA 02116

ATTN: Jocelyn M. Sedney

SUBJECT: SPRINKLER FREEZE-UP (1/19/03)  
HODAN PROPERTIES VS. FSSNE  
NORTH DARTMOUTH, MASSACHUSETTS

Dear Ms. Sedney:

Pursuant to your request, I submit this letter which serves as my initial report on the sprinkler freeze-up which took place at the subject location on January 19, 2003.

DATA CONSIDERED

I reviewed the following case documents.

- United States District Court Complaint and Exhibits dated July 9, 2004
- Expert Reports, Photos, Exhibits and Correspondence
  - Richard R. Papetti, P.E. dated April 28, 2003
  - Fred Paul, III, P.E. dated May 6, 2003
  - Richard R. Papetti, P.E. dated November 13, 2003
  - Thomas J. Klem dated November 28, 2003
  - Richard R. Papetti, P.E. dated April 2, 2005
  - Richard R. Papetti, P.E. dated August 20, 2005
  - Richard R. Papetti, P.E. dated December 23, 2005
- Central Sprinkler Company Data Sheets
  - Dry Pipe Valve AF & AG 7-96
  - Alarm Check Valve F & G 9-95

Brody, Hardoon, Perkins & Kesten, LLP

April 28, 2006

Page 2

- Sprinkler Plans, Work Orders, Correspondence and Invoice
  - Fire Suppression Systems of New England (FSSNE) fire protection drawings dated 10/22/01
  - FSSNE Site Video of 1/19/03
  - FSSNE Work Orders of 1/19, 20, 21, 22, 23/03
  - FSSNE Correspondence 1/22/03
  - FSSNE Invoice of 1/29/03
- Contract Documents
  - Marriott Design Standard – Module 14, Fire Protection/Life Safety
  - PCI Architecture, A Division of Pro Con Inc., Project Specifications
    - ❖ Section 13850 – Fire Alarm and Detection Systems
    - ❖ Section 13900 – Fire Suppression
    - ❖ Section 15300 – Fire Protection
    - ❖ Section 15315 – Sprinkler System Design Criteria Clarification
    - ❖ Section 15325 – Life Safety Testing Requirements
    - ❖ Section 15350 – Acceptance Inspection and Testing of Fire Protection Systems
- Automatic Sprinkler (AS) & Fire Alarm (FA) Test/Inspection Reports
  - FSSNE – Contractor's Material and Test Certificates for Above-Ground Piping dated 1/17/02
  - TEC Control Service Inc - Certificate of Completion dated 4/27/02
  - Fire Systems Inc (FSI) – Inspection Report and Tag dated 11/20/02
  - FSI - Service Acknowledgement 12/10/02
  - FSI – Inspection Report dated 1/16/03
  - TEC – Job Work Order dated 1/16/03
  - Notifier – Intelligent (AFC-600) Fire Alarm Printout from 6/16/02 to 1/19/03
  - Notifier – Intelligent (AFC-600) Fire Trouble Printout for 1/19/03
- Local Climatological Data – Milton, MA and Providence, RI
  - November 2002
  - December 2002
  - January 2003
- Depositions
  - John H. Palmer dated 6/8/05
  - Michael Zurowski dated 8/24/05
  - Charles M. Higgins dated 8/30/05
  - Charles Barrett dated 9/23/05
  - Jacinto M. Medeiros dated 11/18/05
  - Scott R. Duplisea dated 1/13/06

Brody, Hardoon, Perkins & Kesten, LLP  
April 28, 2006  
Page 3

➤ Cory Rogers dated 4/3/06

- Dartmouth Fire Department records produced 12/22/05

I reviewed applicable sections of the following National Fire Protection Association (NFPA) Reference Standards and Handbook.

- NFPA 13 – Automatic Sprinkler (AS) Installation Standard
- NFPA 25 – Automatic Sprinkler (AS) Inspection and Testing Standard
- NFPA 72 – Fire Alarm (FA) Standard
- NFPA – Automatic Sprinkler and Standpipe Systems (third edition) by John L. Bryan

I attended the mediation hearing on May 5, 2005 and reviewed documents presented.

I attended the deposition of John H. Palmer of FSI on June 8, 2005 and reviewed exhibits produced.

#### OBSERVATIONS AND OPINIONS

Based on an analysis of case documents and a site visit to the subject location on December 1, 2004, I offer the following observations and opinions at this time.

Dry Pipe Valves and associated accessories are often required in unheated areas of sprinklered buildings in New England. For many years, the fire protection industry has recognized that dry systems require more care, supervision and maintenance than wet systems.

When the installation of a dry pipe automatic sprinkler system is complete, more extensive testing is required than would be performed on a wet system. Dry piping must be pneumatically tested and the dry pipe valve must undergo a functional trip test. The function test includes recording the normal air and water pressure at beginning of the test, the air pressure at the trip point, the time to trip the valve through the test connection, the time for water to reach the test outlet and the proper operation of the alarm devices. In addition, piping for both wet and dry systems are required to hold hydrostatic pressure of 200 psi for 2 hours.

On January 17, 2002, the dry pipe system serving the attic, lobby and pool at the subject location satisfactorily completed required pressure testing which was witnessed by John J. McNamara, Fire Chief of District #3. Christopher J. Paquin, Project Manager for FSSNE, completed the Contractor's Material and Test Certificate in compliance with NFPA Standard 13, PCI's Design Specifications and Marriott's Design Standard – Module 14, Fire Protection/Life Safety.

Marriott's standards are specific that fully operational, contractor tested and approved Life Safety Systems (LSS) must be in-service before a property is opened to the public. To insure high quality control, Marriott offers the expertise and experience of the Marriott Fire Protection

Brody, Hardoon, Perkins & Kesten, LLP  
April 28, 2006  
Page 4

Department (MFPD) of Washington, DC to supervise and coordinate acceptance testing of Fire Protection/Life Safety Systems. No documents have been produced indicating that Hodan Properties, the franchisee for the subject location, took advantage of this option and employed the services of MFPD to act as the owner's representative in testing components of Life Safety Systems. LSS are defined by the Marriott Standard and PCI Specifications as the Automatic Sprinkler (AS) System and Fire Alarm (FA) System.

It is interesting to note that Section 13850 of the PCI Specification for this project clearly states that "sprinkler flow and tamper switches will be furnished and installed under Section 13900 (Fire Suppression). The electrical subcontractor shall be responsible for wiring and connection to sprinkler switches". Therefore, FSSNE was charged with the task of procuring and mechanically installing the Potter PS 10-2A, pressure alarm switch, and the Potter PS 40-2A, low air supervisory switch, on the Central Sprinkler Company dry pipe valve. Paquette Electric was charged with the task of wiring and electrically connecting the switches to the Notifier Intelligent Fire Alarm System. Pro Con Inc. had oversight and coordination responsibility for the AS and FA contractors. As such, FSSNE would not be responsible for wiring the low air supervisory switch or alarm pressure switch, either internally or externally, during the installation or acceptance tests of the AS and FA systems.

Paquette Electric extended wiring from the dry pipe valve supervisory and alarm switches to addressable FA modules mounted on a wall in the sprinkler valve room. These modules, along with at least six other addressable points, associated with the dry pipe valve or alarm check valve were electrically connected to the Notifier Fire Systems, AFC-600 Intelligent Fire Detection and Alarm System located at the constantly attended registration desk in the hotel lobby.

In addition to the sprinkler valve room, the Fire Alarm System extended into most of the occupied areas of the hotel. When the entire installation was complete, Paquette utilized the services of TEC Control Systems, Inc. of Torrington, CT., to perform an acceptance test on April 27, 2002. TEC filled out a Certificate of Completion indicating that the "installation is complete and wiring checked for opens, shorts, ground faults, and improper branching". TEC also noted that "all operational features and functions of this system were tested by TEC control systems, Inc. on 4/27/02 and found to be operating properly in accordance with the requirements of NFPA 72 - Chapters 1, 2, 3, 5, 6, 7, NFPA 70 and the manufacturer's instructions." TEC's inspection and testing report were completed by Scott R. Duplisea in compliance with appropriate NFPA Standard 72, PCI's Design Specifications and Marriott's Design Standard - Module 14, Fire Protection/Life Safety.

On April 30, 2002, representatives of TEC, ProCon, FSSNE and the Dartmouth Fire District #3 jointly performed the final acceptance test on the automatic sprinkler and fire alarm systems. This test included proper operation and function of the low air supervisory and alarm pressure switches on the dry pipe valve.

Brody, Hardoon, Perkins & Kesten, LLP  
April 28, 2006  
Page 5

On or about May 17, 2002, the AS and FA systems were in service and turned over to Marriott's franchisee, Hodan Properties. The hotel reportedly opened for business in May 2002. Hodan Properties contracted Fire Systems, Inc (FSI) on October 24, 2002 to conduct the quarterly testing and inspections of the AS and FA systems. The quarterly inspections, which are required by NFPA Standard 25 and the manufacturer's instructions, were not conducted during the summer or fall because Hodan Properties failed to retain a service provider. As winter approached, Hodan Properties could have retained FSSNE and Paquette/TEC, but chose FSI who was not familiar with installation details.

Between October 24, 2002 and November 20, 2002, there were several days where the minimum temperature approached or fell slightly below freezing (32° F). On November 20, 2002, the temperature in the region (Milton, MA and Providence, RI) was between 31° F and 57° F.

FSI conducted the first quarterly inspection and testing of the AS and FA systems on November 20, 2002. At that time, FSI placed an inspection tag on the dry pipe valve and correctly identified it as a "Central 4" mod AG". The tag was initialed by "J" which most likely stands for John Palmer. FSI noted the static pressure of 65 psi dropped to 55 psi, presumably when FSI conducted the required 2 inch drain test. FSI responded "Y" (yes) to the required question "Alarms Operate OK". FSI indicated the air pressure was 38 psi. No entries were made as to the "Air Pressure at the Trip Point" or "Trip Time (seconds)" which would indicate the dry pipe valve was not intentionally trip tested.

Information on the tag was duplicated and expanded on the FSI Test/Inspection Report dated 11/20/02. The report is comprehensive and indicates the air pressure and priming water for the dry pipe valve are normal, but the air compressor is not bolted to the floor. The report indicates there is one dry pipe sprinkler valve, three pressure switches, and four flow-switches (sprinkler), all of which tested "OK". The report states a 2 inch water flow test was made on the dry system and the static pressure was 65 psi before and after the flow test. The flow pressure was 55 psi. The report included a punch list of seven relatively minor items which required routine maintenance or alteration. Lastly, the report indicates that the signal was received at a monitoring station and restored to normal. The report was signed by a representative of FSI and Hodan Properties.

The tag and report provide written evidence that the test required by the NFPA 25, Central Sprinkler Company and Notifier Fire Systems were conducted appropriately by FSI and that the Life Safety Systems were operating as designed and installed.

On December 10, 2002, FSI removed a tamper switch tied to a module (2M022) so work by another contractor could take place on a water supply control valve.

Between November 21, 2002 and January 16, 2003, there were at least 27 days when the average temperature was at or below freezing. There was a 7-day period during early December, and

Brody, Hardoon, Perkins & Kesten, LLP

April 28, 2006

Page 6

another 5-day period during early January, when the average temperature stayed below freezing. Water can sometimes become trapped in a sprinkler line of a dry pipe system when a branch line is not properly pitched to drain. If water was trapped in a sprinkler line at this location from acceptance testing, it should have frozen and resulted in air or water leakage prior to FSI's second inspection.

On January 16, 2003, FSI conducted the second quarterly inspection and test of the AS and FA systems. In the 5-day period before January 16, 2003, the average temperature each day was below freezing. On January 16, 2003, the temperature in the region was between 13° F and 29° F. The forecast for the days following the test were to be the coldest experienced to date during the winter of 2002/2003.

FSI made no entries on the inspection tag on January 16, 2003, even though it is standard practice within the industry to do so. The FSI Test/Inspection Report did, however, indicate the dry pipe valve was in service and in good condition. The air pressure and priming water for the dry pipe valve were listed as normal. The air compressor is now listed as being in good condition. Low point drains are shown as being N/A (not applicable), even though they do exist. There is one dry pipe sprinkler valve, three pressure switches, and four flow-switches (sprinkler), all of which tested "OK". The report states a 2 inch water flow was made on the dry system and the static pressure was 65 psi. The flow pressure was 55 psi. The static pressure after the flow is 55 psi which is indicative of a problem encountered while performing the 2-inch drain test on the dry pipe valve. The report includes two new punch list items. One is an unusual problem with Module 39 of the FA system, serving a standpipe, being wired backwards. Identifying this problem would have required a function test on the standpipe, as well as removal of the cover and examination of wiring inside the switch. Another irregularity on this report is there is no indication that the monitoring station received an alarm signal during this test.

On January 16, 2003, TEC received a request for service on the FA system from Hodan Properties. The request was made shortly after FSI had completed their quarterly testing. TEC found both telephone lines intended to transmit signals to the monitoring station disconnected. TEC reconnected the telephone lines and checked the battery back up system which was in excellent shape. The battery back up system indicated it was in "trouble" at the FA panel when TEC first arrived. As the FA history revealed other parties had been working on the system, TEC noted that "any wiring problems on devices in the field need to be directed to the construction electrician".

The absence of customary notes on the FSI inspection tag; several discrepancies in completing the FSI test/inspection report; the inconsistencies between FSI written reports and verbal testimony; and, most importantly, the need for Hodan Properties to place an emergency service call to TEC to reconnect the link to the monitoring station and silence the battery trouble signal are indicative of problems and distractions developing during FSI testing on January 16, 2003.

Brody, Hardoon, Perkins & Kesten, LLP  
April 28, 2006  
Page 7

On January 19, 2003, an occupant discovered water leaking through the ceiling of Room 327 and activated a manual pull station in the corridor. The Dartmouth Fire Department was summoned and determined that the dry pipe sprinkler system in the attic had tripped and activated. Water in piping had frozen and components of the system had failed allowing water to escape undetected. FSSNE was called by Hodan Properties on January 19, 2003 to evaluate conditions and plan repairs.

On January 22, 2003, Richard R. Papetti, P.E., inspected the AS and FA systems on behalf of Hodan Properties. He found that the branch sprinkler line that failed, and the branch sprinkler lines reported to have frozen, had sufficient slopes to avoid the collection and freezing of water within them. Papetti also reported there were no indications that the slopes of the frozen sprinkler lines were altered after the loss. Papetti reported that it was probable that the automatic dry pipe sprinkler system was drained properly prior to the period of cold weather in early December.

On January 22, 2003, the sprinkler system had been repaired, pneumatically tested by FSSNE and was ready to be returned to service. At that time, an electrician from Paquette Electric found that wiring within the low air supervisory switch and alarm pressure switch had been altered after the AS and FA systems had been certified through acceptance testing and turned over to the owner. The electrician corrected the situation, so the FA and AS system could be restored to service. This discovery provided an explanation as to why neither a low air signal, nor an alarm signal, were received prior to the hotel guest finding water leaking into Suite 327 on January 19, 2003. The absence of a functioning low air supervisory switch and an alarm pressure switch was pivotal in transforming this incident from a routine sprinkler leakage event to a major loss which went undetected for a considerable period of time and caused substantial damage.

Generally, little or no damage occurs when a sprinkler fitting cracks or the cap on a sprinkler head becomes unseated from the formation of ice within sprinkler piping. Air pressure will bleed down slowly within the sprinkler system until the low air supervisory switch activates and sends a signal to the fire alarm panel. The fire alarm panel at this location was at the constantly attended registration desk in the hotel lobby, so the staff would have known when the FA panel went into a trouble or alarm mode. If Hodan Properties had an emergency plan and a properly trained staff, they could have taken action to close the main sprinkler control valve on the dry pipe system before air pressure was reduced to a point where it tripped. Hodan Properties could have utilized in-house employees, on-call contractors or the Dartmouth Fire Department to fully implement the emergency plan.

If air pressure dropped to the trip point before the control valve could be closed, the dry pipe valve would have tripped and activated the alarm pressure switch at the same time water was displacing air in sprinkler piping. Simultaneously, an alarm signal would automatically be sent to the monitoring station which would alert the Dartmouth Fire Department (DFD) to respond to the property, as if there was a fire. Upon arrival, the DFD would promptly take emergency



Brody, Hardoon, Perkins & Kesten, LLP  
April 28, 2006  
Page 8

action, such as closing the sprinkler control valve, spreading salvage covers in the area immediately affected by the sprinkler water discharge and operating water vacuums.

Based on currently available data, the most probable explanation as to how water entered into sprinkler piping, which froze and damaged sprinkler system components causing them to leak on January 19, 2003, was quarterly test activities conducted by FSI at the dry pipe valve on January 16, 2003. FSI also had the knowledge and the access to wiring in the low pressure supervisory and alarm pressure switches to disable the devices. Otherwise, the FA Panel would have remained in the alarm mode, once the dry pipe valve tripped, and would not have returned to normal when FSI completed their quarterly test.

#### QUALIFICATIONS

My opinions are based on my technical education, progressive engineering experience and exposure to applications in everyday use. A copy of my resume is attached.

Very truly yours,

FIRE CONSULTING ASSOCIATES INC.



David R. Bouchard, P.E.  
Principal

DRB/pmr

**DAVID R. BOUCHARD, P.E., FSFPE**  
**FIRE CONSULTING ASSOCIATES, INC.**  
**POST OFFICE BOX 6664**  
**PROVIDENCE, RHODE ISLAND 02940**  
**Telephone: 401-467-6014**  
**Fax: 401-467-7509**  
**Email: firepe@cox.net**

Mr. Bouchard holds an Associate Degree in Fire Protection Technology from Oklahoma State University and a Bachelor of Science Degree in Industrial Technology (EDIT) from the University of Maryland at College Park. He has over 38 years experience in the fire field with capabilities ranging from the firesafety of buildings and industrial processes to community fire protection planning and fire-related civil litigation.

Upon graduation in January, 1968, he joined Factory Mutual Engineering Association as a Field Engineer assigned to the Boston District Office, serving most of New England and part of New York State. Early in 1971, he became an Account Engineer for Allendale Insurance, which is part of the Factory Mutual System. Here he serviced national accounts with corporate offices located in Chicago, Milwaukee, Minneapolis and other parts of the mid-west. His Factory Mutual experience focused primarily on evaluating fire protection features at a wide variety of commercial and industrial properties and offering recommendations on methods of reducing the probability of large fire losses. On occasion, investigations were conducted or critiqued to identify significant factors contributing to fire losses.

In 1973, he was employed as an Associate at Firepro, Inc., a fire protection engineering consulting firm located in the Boston area. In 1979, he was promoted to Senior Associate. He served as a Director and Corporate Vice President from 1984 until 1986.

Since January 1986, Mr. Bouchard has offered fire protection consulting services on an independent basis. These services are offered to a wide spectrum of clients including building developers, designers and managers; attorneys and insurance representatives; as well as public officials and agencies committed to improving firesafety.

As a consultant, Mr. Bouchard served as the Manager-in-Charge of fire defense planning efforts, encompassing review of appropriate codes and standards for a wide variety of projects including theaters, hospitals, hotels, educational facilities, industrial properties, retail and office complexes and residential subdivisions.

Mr. Bouchard worked with major architectural firms and developers in the preparation of conceptual fire defense programs at a number of important buildings in the metropolitan Boston area including the Transportation Building at Park Square, One Financial Center at Dewey Square, Charles Square in Cambridge, Newton Place at Newton Corner, the Veteran's Administration Hospital in West Roxbury, Kennedy School of Government - Phase III & IV at Harvard University, The National Fire Protection Association Headquarters in Quincy, the Guest Quarters Suite Hotel in Waltham, and most notably Rowes Wharf on Boston's Waterfront.

In addition to new construction, Bouchard developed fire defense programs for existing buildings such as the Oliver Building in downtown Boston, Peabody Terrace overlooking the Charles River, the Colonnade Hotel in Back Bay, the Hasty Pudding Theatrical Club and William James Hall near Harvard Square, former warehouses at Fort Point Channel, and high-rise housing for the elderly in Roxbury.

Mr. Bouchard managed fire defense programming efforts using a goal-oriented systems approach to building firesafety for federal office buildings in Manchester, New Hampshire, New Haven, Connecticut and the Library of Congress in Washington, D.C. He established firesafety guidelines for the restoration of the Federal Courthouse in New Haven, Connecticut and completed a study on the need for a state-of-the-art fire alarm system for the United States Navy nuclear submarine base in Groton, Connecticut.

Other major projects included an in-depth fire protection audit of the Connecticut General Insurance Company's Office Complex in Bloomfield, Connecticut; the successful handling of the appeals proceeding for the Basketball Hall of Fame in Springfield, Massachusetts; and negotiations with code officials in Providence, Rhode Island related to the Center for Information Technology at Brown University. Fire protection programming efforts of international interest involved work on the Government Service Insurance System (GSIS) Headquarters Building in Manila, the Philippines and the Council of Ministers Building in Baghdad, Iraq.

Mr. Bouchard has offered technical assistance to the legal community on a variety of fire related incidents including studies of conflagrations in groups of mill buildings in Ansonia, Connecticut, Fall River, Lowell and Methuen, Massachusetts. He has testified as an expert witness on several occasions and worked closely with a number of law firms representing one of the nation's leading designers and manufacturers of fire suppression systems in matters related to litigation.

He provided input on civil litigation connected with firefighter injuries or fatalities in Boston, Chicago, Milwaukee, New York City and Philadelphia. He has also recommended alternatives to the traditional approach, when planning public fire protection improvements, for communities of various size in different geographical areas, such as Austin, Texas; Longmont, Colorado; and Somers, Connecticut.

Concurrent with Mr. Bouchard's educational and professional activities, he gained over 30 years of practical experience as a firefighter having served with fire departments in Rhode Island, Maryland and Oklahoma. During 12 of those years, he was a Lieutenant and Training Officer on a volunteer engine company which functioned as part of an urban fire department in a community with nearly 75,000 people. He later served as Safety Officer before shifting his attention to administrative and budget concerns as Vice President.

Mr. Bouchard is a Registered Professional Engineer in Massachusetts and a Fellow of the Society of Fire Protection Engineers (SFPE). Currently, he is a member of SFPE's Honors Committee. He served as a Vice President on SFPE's Board of Directors. He was Chairman of SFPE's Fire Service Committee and received the Director's Award for Extraordinary Committee Service. He was President of the New England Chapter - SFPE and received the Richard E. Stevens Distinguished Service Award. He is a Technical Committee Member of the National Fire Protection Association (NFPA) and a Professional Member of the International Code Council (ICC).

He has been a guest lecturer on the practical aspects of building firesafety design and fire suppression system investigations at Worcester Polytechnic Institute Center for Firesafety Studies in connection with its graduate degree program in Fire Protection Engineering. On three occasions, he was a speaker at the Boston Society of Architects (BSA) seminar "Build Boston". One of his presentations focused on the technical aspects of schematic fire defense programming for a multi-use, high-rise project located above and below grade and partly surrounded by water.

**DAVID R. BOUCHARD, P.E.**  
**FIRE CONSULTING ASSOCIATES, INC.**  
**PROVIDENCE, RHODE ISLAND**

**ENGINEERING AND ALLIED ORGANIZATIONS**

**Society of Fire Protection Engineers (SFPE) – International Certificate #2364**

**Membership Grades**

- Fellow – 5/00 to Present
- Member – 11/79 to 5/00
- Associate – 3/77 to 11/79
- Junior – 5/72 to 3/77

**Board/Committee Memberships**

- Member – Honors Committee – 06/04 to Present
- Vice President – Board of Directors – 01/02 to 01/04
- Member – Board of Directors – 01/98 to 01/02
- Recipient – Director's Award for Extraordinary Committee Service – 05/98
- Board Liaison – Fire Service Committee – 01/98 to 07/02
- Chairman – Fire Service Committee – 07/91 to 01/98
- Member – Fire Service Committee – 07/87 to 07/91

**New England Chapter – Society of Fire Protection Engineers (NEC-SFPE)**

- Recipient – Richard E. Stevens Distinguished Service Award – 05/93
- President – 90/91
- Vice President – 88/90
- Director – 87/88
- Director – 76/77
- Member – 69/70 to Present

**National Fire Protection Association (NFPA)**

**Technical Committee Member**

- NFPA Std. 96 – Venting Systems for Cooking Appliances – Design, Installation and Use – 07/97 to Present
- NFPA Stds. 1931 & 1932 – Fire Department Ground Ladders – Design, Testing and Use – 06/79 to Present (12/05 – 25 Year Service Award)
- NFPA Stds. 1901 through 1904 – Fire Department Equipment and Apparatus – Design, Testing and Use – 06/79 to 12/92
- NFPA Std. 1221 – Public Fire Service Communication Systems – Design, Testing and Use – 01/77 to 06/79

**Section Member**

- Fire Service Section – 09/75 to Present
- Nominating Committee – 05/78

**Voting Member – 06/74 to Present**

**International Code Council (ICC)**

- Professional Member – 1986 to Present (BOCA/ICC) – Certificate # 02308/5132159

**DAVID R. BOUCHARD, P.E.**  
**FIRE CONSULTING ASSOCIATES, INC.**  
**POST OFFICE BOX 6664**  
**PROVIDENCE, RHODE ISLAND 02940**  
**Telephone: 401-467-6014**  
**Fax: 401-467-7509**  
**Email: firepe@cox.net**  
**Federal Tax Number: 04-2926501**

**STANDARD FEE SCHEDULE**

**FOR PROFESSIONAL SERVICES:**

- Consulting \$185.00/hour  
(field investigations, code research, document review, meetings,  
telephone conversations, processing reports/photos, travel, etc.)
- Testifying \$275.00/hour  
(under oath at depositions, trials, hearings, etc.)

**FOR REIMBURSABLE EXPENSES:**

- Telephone \$0.25/minute
- Fax/Email \$1.00/page
- Copies \$0.10/page
- Reports \$4.00/page
- Postage \$0.37/ounce
- Mileage \$0.36/mile
- Photos \$0.50/print

**DAVID R. BOUCHARD, P.E.  
FIRE CONSULTING ASSOCIATES, INC.  
PROVIDENCE, RHODE ISLAND**

**TRIAL TESTIMONY**

March 4, 1980 – Bristol Superior Court, Commonwealth of Massachusetts, regarding the installation of an automatic fire sprinkler system at the "Bridal and Sportswear Shoppe" in North Attleboro, Massachusetts.

February 13, 1986 – Suffolk Superior Court, Commonwealth of Massachusetts, Civil Action 30270, regarding the cause, origin, spread and suppression of a fire at 400-1 Totten Pond Road, Waltham, Massachusetts, on April 10, 1976. Judge Abrams presiding.

September 22, 1988 – Richmond, Rhode Island, a hearing regarding an alternate to a community based fire department at Birchwood Realty Landfill for the State of Rhode Island and Providence Plantations – Department of Environmental Management – Public Comment Hearing November 10, 1988. Dennis Esposito, Hearing Officer, presiding.

May 9, 1991 – Middlesex Superior Court, Commonwealth of Massachusetts, Civil Action 87-4291, regarding the area of fire origin, cause, spread and suppression of a fire at 1001 Massachusetts Avenue, Cambridge, Massachusetts at 14:02 on May 24, 1986. Judge Abrams presiding.

December 12, 1994 – Vanderburgh Superior Court, State of Indiana, Cause #82D03-9206-CT-1060, regarding the cause, origin, spread, detection and suppression of a fire on board a Marion Dresser 3560 hydraulic excavator at Vigo Coal Mine, Buckskin, IN at 20:19 on March 24, 1991. Judge Scott R. Bowers presiding.

March 20, 1998 – Franklin Superior Court, State of Maine, Docket No. CV-96-45, regarding the discovery, response and suppression of a fire at the Northern Mattress Furniture Store on Main Street, Fairfield, Maine at 23:05 on March 26, 1993. Judge James Delahanty presiding.

February 12, 1999 – Middlesex Superior Court, Commonwealth of Massachusetts, Civil Action 95-1635, regarding the cause, origin, spread, detection and suppression of a fire at 14 Roosevelt Towers, Cambridge, Massachusetts at 08:56 on August 31, 1993. Judge Stephen E. Neel presiding.

**DAVID R. BOUCHARD, P.E.**  
**FIRE CONSULTING ASSOCIATES, INC.**  
**PROVIDENCE, RHODE ISLAND**

**DEPOSITION TESTIMONY**

3/21/78	Burlington, VT., [Robert Kenny vs. Thomas Industries, Inc], U.S. District Court for the District of Vermont, Civil Action 77-133, Shelburne, VT	D
11/05/82	St. Johnsbury, VT., [Harland Cantin vs. Agway Insurance Co.], Essex County Superior Court, Docket No. S17-82 Ec., Guildhall, VT.	D
3/26/85	Philadelphia, PA., [American Rendering vs. Dart Industries], U.S. District Court for Eastern PA., Case #83-5838, Green Ridge, PA	D
7/31/85 2/27/86	Milwaukee, WI., (2) [William Zokan vs. Milwaukee Waste Paper Co.], Circuit Court of Milwaukee, Case #623-160, Milwaukee, WI.	P
10/31/85 12/13/85	Boston, MA (2) [First Data Corp vs. Xerox Corp.], Suffolk Superior Court, Civil Action #30270, Waltham, MA	D
9/28/90	Boston, MA [Barnard vs. Gavin] Civil Action #89-0037, Dukes County Superior Court, Martha's Vineyard, MA	P
11/21/91	Boston, MA [Beaver Inc. vs. Emerson Const], Civil Action #89-7615, Waltham, MA	P
1/27/93	Boston, MA [James Mullen vs J.J. Vaccaro], Civil Action #87-07992, Beverly, MA	P
4/08/93	Warwick, RI [Koester Equip. & Vigo Coal vs M & S Fire Safety vs Ansul] Vanderburgh Superior Court CA #82D03-9007-CT-1129, Buckskin, IN	D
7/27/94	Warwick, RI [Koester Equip. & Vigo Coal vs M & S Fire Safety vs Ansul] Vanderburgh Superior Court CA #82D03-9206-CT-1060, Buckskin, IN	D
9/19/96	Boston, MA [Northern Mattress, Inc. vs Town of Fairfield], Franklin Superior Court, Docket No. CV-96-45, Fairfield, ME	P
10/03/97	Quincy, MA [Kathleen Minehan vs Rapids Realty Co.], Suffolk Superior Court, Civil Action #95-5039C, Boston, MA	D
4/29/99	Chicago, IL [Amax Coal vs. Hitachi Machinery and Ansul], Sullivan Superior Court, CA #77D01-9507-CT-0128, Dugger, IN	D
2/02/00	Omaha, NE [Big Red Keno vs. General Fire & Safety], Lancaster County District Court #565, Lincoln, NE	P
8/23/00	Providence, RI [Koester Equip. & Vigo Coal vs. Rudd Equipment and Ansul], Vanderburgh Superior Court, CA #82D03-9502-CP-261, Oakland City, IN	D
11/28/00	Boston, MA [Industrial Risk Insurers vs. Sherle Wagner Int'l & Miranda Roofing], U.S. District Court of Massachusetts, CA #99CY12216-RW2, Fall River, MA	F
1/25/05	Providence, RI [Quinlan Companies vs. New England Construction and Tri-State Fire Protection vs. Atlantic Mutual Insurance], Providence Superior Court, CA #PC02-1814, Providence, RI	P

**DAVID R. BOUCHARD, P.E.  
FIRE CONSULTING ASSOCIATES, INC.  
PROVIDENCE, RHODE ISLAND**

**EXPERT WITNESS DISCLOSURES**

1/12/94	Philadelphia, PA [Consolidated Action-One Meridian Plaza Fire Litigation] Consolidated Civil Action #91-5875 U.S. District Court for Eastern PA	D
7/18/02	Worcester, MA [Malden Mills Industries, Inc. & Commerce and Industry Insurance Company vs E. I. duPont de Nemours Co], Chapter 11 – Case #0147214 (JBR) through 01-47217 (JBR). U.S. Bankruptcy Court of Massachusetts – Western Division	P

**ARBITRATION HEARING**

8/27/91	Providence, RI [John A. Perkins vs. Port Edgewood], Newport Superior Court, No #83-0278, Cranston, RI	P
11/12/03	Manchester, NH [Robert F. Welsh vs. Vernon Chase], Grafton Superior Court, No .01-C-0141, Campton, NH	D

**MEDIATION HEARING**

5/05/94	Boston, MA [25 <sup>th</sup> Billerica Corp. vs. Fire Protection Systems], Billerica, MA	P
---------	--	---